UNITED STATES INTERNATIONAL TRADE COMMISSION Washington, D.C.

In the Matter of

CERTAIN TELEVISIONS, REMOTE CONTROLS, AND COMPONENTS THEREOF

Investigation No. 337-TA-1263

COMMISSION OPINION

TABLE OF CONTENTS

I. INTRODUCTION	2
II. BACKGROUND AND PROCEDURAL HISTORY	
III. COMMISSION REVIEW OF THE ALJ'S FINDINGS	5
IV. DISCUSSION	6
A. The '511 Patent	6
1. The ALJ's Findings As to Indefiniteness of Claim 5 of the '511 Patent	t 6
2. The Parties' Arguments	6
3. Analysis	7
B. The '875 Patent	17
1. The ALJ's Findings	17
2. The Parties' Arguments	18
3. Analysis	19
C. Modifications to Other Findings as to the '875 Patent	26
V CONCLUSION	27

I. INTRODUCTION

On October 5, 2022, the Commission determined to review in part a final initial determination ("ID") issued on June 28, 2022, by the presiding administrative law judge ("ALJ") finding no violation of section 337 of the Tariff Act of 1930, as amended, 19 U.S.C. § 1337, with respect to the asserted claims of U.S. Patent No. 7,388,511 ("the '511 patent") and U.S. Patent No. 8,378,875 ("the '875 patent"). The Commission also determined to review in part Order Nos. 30 and 37, issued on January 14, 2022, and June 24, 2022, respectively. On review, the Commission has determined that there has been no violation of section 337 with respect to either patent.

In particular, the Commission has determined to affirm the ID's finding of no violation with regard to the '875 patent and to affirm the finding of invalidity in Order Nos. 30 and 37 with regard to claim 5 of the '511 patent with certain modifications in the underlying findings and reasoning. The Commission has also determined on review to modify certain findings and statements in the ID pertaining to the '875 patent that lack support in the record. *See* Part IV.C, *infra*. The Commission affirms and adopts the findings, conclusions, and supporting analysis of the ID and of Order Nos. 30 and 37 that are not inconsistent with this opinion.

II. BACKGROUND AND PROCEDURAL HISTORY

The Commission instituted this investigation on May 14, 2021, based on a complaint filed on behalf of Roku, Inc. ("Roku") of San Jose, California. 86 Fed. Reg. 26542-43 (May 14, 2021). The complaint, as supplemented and amended, alleged violations of section 337 based upon the importation into the United States, the sale for importation, and the sale within the United States after importation of certain televisions, remote controls, and components thereof by reason of infringement of one or more of claims 1-5, 8-11, and 14 of the '875 patent and

claim 5 of the '511 patent.¹ The amended complaint further alleged that an industry in the United States exists or is in the process of being established. The Commission's notice of investigation named the following entities as respondents: Universal Electronics, Inc.; Gemstar Technology (Qinzhou) Co. Ltd.; Gemstar Technology (Yangzhou) Co. Ltd.; C.G. Development Ltd.; Universal Electronics BV; UEI Brasil Controles Remotos Ltda.;² CG México Remote Controls, S. de R.L. de C.V.; LG Electronics Inc.; LG Electronics USA, Inc.; Samsung Electronics Co., Ltd.; Samsung Electronics America, Inc.; Charter Communications, Inc.; Charter Communications Operating, LLC; Spectrum Management Holding Company, LLC; Altice USA, Inc.; Cablevision Systems Corp.; Cequel Communications, LLC d/b/a Suddenlink Communications; and WideOpenWest, Inc. (collectively, "Respondents"). *Id.* at 26543; ID at 2-3. The Commission's Office of Unfair Import Investigations was not named as a party in this investigation.

A *Markman* hearing was held on August 19 and September 14, 2021. ID at 3. A first *Markman* order construing certain claim terms for the '511 patent and certain agreed-upon claim terms for the '875 patent issued on January 14, 2022. Order No. 30 (Jan. 14, 2022) (*Markman* Order I). In construing terms for the '511 patent, the ALJ found that the only asserted claim, claim 5, was invalid as indefinite. *Id.* at 13. A second *Markman* order construing additional claim terms for the '875 patent issued on January 21, 2022. Order No. 32 (Jan. 21, 2022)

_

¹ On November 19, 2021, an initial determination issued granting Roku's motion for partial termination of the investigation based upon withdrawal of claim 11 of the '875 patent. Order No. 19 (Nov. 19, 2021), *unreviewed by* Comm'n Notice (Dec. 14, 2021). Accordingly, pending in this investigation are claims 1-5, 8-10, and 14 of the '875 patent and claim 5 of the '511 patent. ID at 3.

² UEI Brasil Controles Remotos Ltda. was terminated from this investigation. Order No. 20 (Nov. 19, 2021), *unreviewed by* Comm'n Notice (Dec. 14, 2021).

(Markman Order II).

Based on the indefiniteness ruling in Order No. 30, Roku and the UEI,³ Samsung,⁴ and LG⁵ respondents (collectively, "the '511 Respondents") jointly moved for entry of summary determination of indefiniteness as to claim 5 of the '511 patent. Motion No. 1263-028 (Jan. 18, 2022). The moving parties agreed that, as a result of Order No. 30, "all remaining issues relating to the '511 Patent are moot (subject to any review of the ALJ's indefiniteness finding by the Commission)." *Id.* at 2. The parties also "stipulated that . . . no party will present evidence at the hearing regarding the 511 Patent" and stated that "all parties stipulate that the portion of the 511 Respondents' Motion for Summary Determination (Mot. No. 1263-015) relating to indefiniteness should be granted." *Id.* at 2-3 (footnote omitted). ⁶ On June 24, 2022, the ALJ issued Order No. 37, granting summary determination in part on the invalidity of claim 5 of the '511 patent and granting reconsideration-in-part of Motion No. 1263-015.

On July 1, 2022, complainant Roku filed a petition for review of Order Nos. 30 and 37.7

³ The ID identified the "UEI" Respondents as: Universal Electronics, Inc., Gemstar Technology (Qinzhou) Co. Ltd., Gemstar Technology (Yangzhou) Co. Ltd., C.G. Development Ltd., Universal Electronics BV, and CG México Remote Controls, S. de R.L. de C.V. *See* ID at xii.

⁴ The ID identified the "Samsung" Respondents as: Samsung Electronics Co., Ltd. and Samsung Electronics America, Inc. *See id*.

⁵ The ID identified the "LG" Respondents as: LG Electronics Inc. and LG Electronics USA, Inc. *See id*.

⁶ The parties' stipulation was premised upon *Markman* Order I finding claim 5 of the '511 patent as indefinite. Roku preserved its right to challenge Order No. 30's claim construction and the summary determination of indefiniteness in Order No. 37 by its petition for review of Order Nos. 30 and 37.

⁷ Complainant Roku's Petition for Review of Order No. 37 Granting Summary Determination That Claim 5 Of The '511 Patent Is Invalid Due to Indefiniteness (July 1, 2022) ("Roku Pet.").

On July 11, 2022, the '511 Respondents filed a response to Roku's petition for review.⁸

On June 28, 2022, the ALJ issued the final ID finding no violation of section 337, and a recommended determination on remedy and bond. The ID incorporated the previous finding that claim 5 was invalid, but did not address any other issues related to the '511 patent. *See* ID at 23-24. The parties filed various petitions and contingent petitions for review of the ID, and responses thereto.⁹

The Commission determined to review Order Nos. 30 and 37 and to review the ID in part on October 5, 2022. 87 Fed. Reg. 61629-30 (Oct. 12, 2022). On review, the Commission affirms the finding of no violation as to both patents.

III. COMMISSION REVIEW OF THE ALJ'S FINDINGS

The Commission's review is conducted *de novo*. *Certain Soft-Edged Trampolines and Components Thereof*, Inv. No. 337-TA-908, Comm'n Op. at 4 (May 1, 2015) (citing *Certain Polyethylene Terephthalate Yarn and Products Containing Same*, Inv. No. 337-TA-457, USITC Pub. No. 3550, Comm'n Op. at 9 (June 18, 2002)). Upon review, the "Commission has 'all the powers which it would have in making the initial determination' except where the issues are limited on notice or by rule." *Certain Flash Memory Circuits & Prods. Containing Same*, Inv. No. 337-TA-382, USITC Pub. No. 3046, Comm'n Op. at 9-10 (July 1997) (quoting *Certain Acid-Washed Denim Garments & Accessories*, Inv. No. 337-TA-324, Comm'n Op. at 5 (Nov. 1992)). With respect to the issues under review, "the Commission may affirm, reverse, modify, set aside or remand for further proceedings, in whole or in part, the initial determination of the

⁸ The '511 Respondents' Response to Roku's Petition for Review of Order No. 37 Granting Summary Determination That Claim 5 Of The '511 Patent Is Invalid Due to Indefiniteness (July 11, 2022) ("Resp. to Pet.").

⁹ See the accompanying Notice for a complete list of pleadings.

administrative law judge." 19 C.F.R. § 210.45(c). The Commission also "may take no position on specific issues or portions of the initial determination," and "may make any findings or conclusions that in its judgment are proper based on the record in the proceeding." *Id.*; *see also Beloit Corp. v. Valmet Oy*, 742 F.2d 1421, 1423 (Fed. Cir. 1984).

IV. DISCUSSION

A. The '511 Patent

1. The ALJ's Findings As to Indefiniteness of Claim 5 of the '511 Patent

The sole issue before the Commission as to the '511 patent is whether the ALJ correctly found that asserted claim 5 is invalid as indefinite. In Order No. 30, the ALJ found that claim 5 of the '511 patent was invalid as indefinite for two reasons. First, the ALJ found that claim 5 was indefinite due to lack of antecedent basis for "the step of transmitting the user specified command" in the second "wherein" clause. *See* Order No. 30 at 10-12. Second, the ALJ found that claim 5 was indefinite because it was not reasonably certain "what the claim is meant to cover in a scenario where the remote control device and coding device are disconnected." Order No. 30 at 12. Order No. 37 granted summary determination that claim 5 of the '511 patent is invalid for indefiniteness and the final ID repeated that finding. Order No. 37 at 6; ID at 23-24. Accordingly, the ID found no violation of section 337 with respect to the '511 patent. ID at 23-24, 165.

2. The Parties' Arguments

Roku contends that the ALJ's indefiniteness finding is erroneous on both grounds. First, Roku submits that "a claim is definite regardless of formal compliance with antecedent basis rules, as long as its meaning is reasonably certain when 'decided in context.'" Roku Pet. at 2, 12-13 (citing *Energizer Holdings, Inc. v. Int'l Trade Comm'n*, 435 F.3d 1366, 1370 (Fed. Cir.

2006)). Second, Roku argues that the ALJ's claim construction analysis failed to address Federal Circuit precedent regarding conditional or contingent claim limitations. *Id.* Roku argues that the Commission should therefore reverse the ALJ's invalidity determination, adopt Roku's construction of claim 5, and remand the investigation to the ALJ for further proceedings. *Id.* at 15. Respondents oppose review, supporting the ALJ's reasoning and conclusions. Resp. to Pet. at 20.

3. Analysis

Section 112 of Title 35, paragraph 2 provides that the "specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention." Known as the "definiteness" requirement, in *Nautilus*, the United States Supreme Court interpreted the requirement as follows:

[W]e read $\S 112$, $\P 2$ to require that a patent's claims, viewed in light of the specification and prosecution history, inform those skilled in the art about the scope of the invention with reasonable certainty. The definiteness requirement, so understood, mandates clarity, while recognizing that absolute precision is unattainable.

Nautilus, Inc. v. Biosig Instruments, Inc., 134 S.Ct. 2120, 2129 (2014). Whether a claim satisfies this requirement is a question of law. S3, Inc. v. nVIDIA Corp., 259 F.3d 1364, 1367 (Fed. Cir. 2001). A party seeking to invalidate a patent claim must do so by clear and convincing evidence. Tech. Licensing Corp. v. Videotek, Inc., 545 F.3d 1316, 1327 (Fed. Cir. 2008).

The sole claim at issue, claim 5, recites:

amendment of 35 U.S.C. § 112 by Pub. L. 112-29 is September 16, 2012).

7

¹⁰ 35 U.S.C. § 112, ¶ 2 (2006 ed.). *See* 35 U.S.C.A. § 112. Specification. Effective: September 16, 2012. Pre-AIA law applies because the '511 patent was filed prior to September 16, 2012. *See* Editorial and Statutory Notes to 35 U.S.C. § 112 (indicating that the effective date for

- 5. A method for remote control of at least two like controllable devices, the method comprising:
 - a) with a remote control device,
 inputting a user-specified command for controlling the controllable devices; and
 transmitting the user-specified command;
 - b) with a coding device,
 - receiving the user-specified command from the remote control device:
 - adding to the user-specified command a device identifier for identification of at least one of the controllable devices; transmitting the device identifier and the user-specified command in combination;
 - c) with one of the like controllable devices,
 - receiving the device identifier and the user-specified command in combination;
 - extracting the device identifier;
 - comparing said extracted device identifier with a further device identifier for identification of the controllable device;
 - refraining from further operation with the received userspecified command if said identifiers do not match; and supplying the user-specified command if said identifiers do match;
 - wherein the remote control device and the coding device are separate devices which are selectively interconnectable and disconnectable, and

wherein the step of transmitting the user specified command further includes:

- transmitting the user-specified command from the remote control device to controllable devices when the coding device is disconnected and
- transmitting the user-specified command and the device identifier from the coding device to the controllable devices when the remote control device and the coding device are connected.

'511 patent, claim 5 (emphasis added).

The ALJ found that "the step of transmitting the user specified command" in the second wherein clause does not have proper antecedent basis and therefore is indefinite. *See* ID at 23-24

(citing Order No. 30 at 9-13). The ALJ indicated that there are "theoretically two options for antecedent basis for that phrase: (i) 'transmitting the user-specified command' in step a), or (ii) 'transmitting the device identifier and the user-specified command in combination' in step b)." Order No. 30 at 10-11. The ALJ further noted that "[w]hile the phrase in step a) recites the same exact language as the 'wherein' clause and would be a clear choice for antecedent basis, Roku instead argues that 'the step of transmitting the user specified command' refers to either step a) or step b), depending on whether the remote control device and coding device are connected or disconnected." *Id.* at 11 (citation omitted). The ALJ observed that Complainant did not present any authority establishing that antecedent basis can be conditional. *See id*.

The Commission agrees with Roku that the claim is reasonably clear as to what "the step of transmitting the user specified command" refers to. As the ALJ recognized, there is some ambiguity in the "wherein" clause, but we find that the language of the second wherein clause of claim 5 provides an adequate basis for a person of ordinary skill in the art to understand the "scope of the invention with reasonable certainty" as expressed in this step. *Nautilus*, 134 S.Ct. at 2129. The clause begins with the phrase "wherein the step of transmitting the user-specified command," which precisely tracks the language of step (a), but the claim refers to two occasions of transmitting the user-specified command; in step (a), where the user-specified command is transmitted on its own, and in step (b), where the user-specified command is transmitted with a device identifier. *See* Order No. 30 at 11-12. Further, the two options that comprise the "wherein" clause closely track steps (a) and (b) as they relate to transmitting the user-specified command: "transmitting the user-specified command from the remote control device to controllable devices when the coding device is disconnected" (step (a)); or "transmitting the user-specified command and the device identifier from the coding device to the controllable

devices when the remote control device and the coding device are connected" (step (b)). '511 patent, claim 5. Admittedly, the first option does not precisely track step (a), which makes no reference to transmitting the user-specified command *to the controllable devices*. Nonetheless, in the Commission's view, it is reasonably clear from the body of the wherein clause which step is being referred to when taking the actions, and therefore the claim is not indefinite for this reason.

The Commission nevertheless agrees with the ALJ that there is an underlying defect in claim 5 that is unrelated to the alleged antecedent basis problem, namely that "a person of ordinary skill in the art would not be able to ascertain with reasonable certainty, what the claim is meant to cover in a scenario where the remote control device and coding device are disconnected." Order No. 30 at 12; see also id. at 13. When the remote control device and coding device are disconnected, the wherein clause of claim 5 requires "transmitting the userspecified command from the remote control device to controllable devices." '511 patent, claim 5. The only guidance as to what the controllable devices do with the user-specified command comes in step (c). Step (c) provides that the controllable devices "receiv[e] the device identifier and user-specified command in combination," "extract[] the device identifier," "compar[e]" the extracted device identifier with a further device identifier; and either "refrain[] from further operation" if the identifiers do not match, or "supply[] the user-specified command" if the identifiers match. Id. The "device identifier," however, is only sent from the "coding device" of step (b). If the remote control device and coding device are disconnected, the coding device never adds the device identifier, and there is no identifier for the controllable device to "receive," "extract," or "compare," and no trigger for the refraining or supplying steps. Ultimately, there is

no indication in the claim as to what, if anything, the controllable devices do with the userspecified command transmitted by the remote control device in the absence of a device identifier.

Roku acknowledges that step (c) "is a required portion of the claim." Roku *Markman* Br. at 29; Order No. 30 at 8-9. And Roku admits that "claim 5 cannot be performed in the 'disconnected' state." Roku *Markman* Br. at 35. Nonetheless, Roku contends that the disconnected state does not render the claim indefinite, but rather is merely allowable "surplusage." *Id.* at 35-36 ("The logical consequence of this is that claim 5 cannot be performed in the 'disconnected' state and therefore 'transmitting the user-specified command from the remote control device to controllable devices when the coding device is disconnected' is effectively rendered surplusage.") (citation omitted). More specifically, Roku argues that because the claim "can be satisfied when operating while the coding device is 'connected,' any method steps required to be performed only in the 'disconnected' state would be permissible surplusage." Roku Pet. at 6 (citation omitted).

The cases on which Roku relies do not support its contention that the disconnected state is mere "surplusage." Initially, Roku cites *Hytera* for the proposition that the method of claim 5 need only be performed with "a system *capable* of performing this conditional limitation when in the 'disconnected' state." Roku Pet. at 14 (emphasis in original) (citing *Hytera Commc'ns Co. Ltd. v. Motorola Solutions, Inc.*, 841 F. App'x 210 (Fed. Cir. 2021)). According to Roku: "method steps (a)-(c) and the 'connected' conditional portion of the wherein clause can be performed in the 'connected' state on a system which is also *capable*—at a different time—of 'transmitting the user-specified command from the remote control device to controllable devices when the coding device is disconnected." *Id.* As a threshold matter, the Federal Circuit in *Hytera* held that in order to render a claim obvious, "the prior art must teach each step of the

claim, including the response to each condition" in a conditionally phrased limitation. *Hytera*, 841 F. App'x. at 216. To the extent this holding is relevant to the present case, it supports the ALJ's finding that all conditions of the claim are meaningful, and that the patent owner is not allowed to pick and choose which conditions in the claim can later be declared "surplusage."

Further, the text of claim 5 does not support Roku's argument. Nothing in steps (a)-(c) of claim 5 indicate these steps are in any way conditional, for example, with prefatory language such as "if." *Cf. Hytera*, 841 F. App'x at 215 ("*if* the timeslot is the current desired timeslot . . . ; *otherwise* selecting a synchronization pattern . . . ").

Roku also relies on *Cybersettle* for a similar contention as with *Hytera*, arguing that "[i]f the condition for performing a contingent step is not satisfied, the performance recited by the step need not be carried out in order for the claimed method to be performed," and because "claim 5 can be satisfied when operating while the coding device is 'connected,' any method steps required to be performed only in the 'disconnected' state would be permissible surplusage." Roku Pet. at 6 (citing *Cybersettle, Inc. v. Nat'l Arb. Forum, Inc.*, 243 F. App'x 603 (Fed. Cir. 2007)). Again, this argument presumes steps (a)-(c) are in fact conditional. Roku's only suggestion as to why the steps are conditional is that the steps must be read in that manner to avoid the claim being nonsensical. We reject Roku's invitation to rewrite the claim. "Although [the courts] construe claims, if possible, so as to sustain their validity, it is well settled that no matter how great the temptations of fairness or policy making," the courts and the Commission "do not redraft claims." *Quantum Corp. v. Rodime, PLC*, 65 F.3d 1577, 1584 (Fed. Cir. 1995); see also Group One, Ltd. v. Hallmark Cards, Inc., 407 F.3d 1297, 1302 (Fed. Cir. 2005) ("We affirm the district court's judgment regarding the invalidity of the claims of the uncorrected '492

patent on grounds of indefiniteness because necessary language was omitted from the claims.").

Thus, Roku's position lacks legal support.

As instructed by the Supreme Court, the Commission also looks to the specification and prosecution history of the '511 patent in reaching its final conclusion on indefiniteness.

Nautilus, 134 S.Ct. at 2129. The specification focuses primarily on a remote control system (and a method of using said system) that includes employing a device identifier to determine whether a user-specified command entered with a remote control should be supplied to a particular controllable device. '511 patent, col. 1, 1. 52-col. 2, 1. 3. The specification discusses various coding and decoding means and various configurations, but the configurations are largely directed to using a device identifier in this manner. *Id.* at col. 2, II. 10-31. There is no discussion of the "disconnected" state in the specification, nor is there any discussion of a system or method having a remote control device and a coding device that "are separate devices which are selectively interconnectable and disconnectable" as required by claim 5. Rather, these limitations were added to the claims during prosecution.

Specifically, after several rounds of attempting to obtain allowance of claims directed to the main embodiment disclosed in the specification, the patentee added dependent claims directed to a remote control and a coding device that are interconnectable and disconnectable and which have different functions depending on the specific state. The sole independent method claim, claim 9, originally recited:

- 9. A method of remote control of at least two controllable devices, the method comprising the step of communicating a user-specified command to the controllable devices, characterized in that the method comprises the further steps of:
- adding to the user-specified command a device identifier for identification of at least one of the controllable devices;
- transmitting the device identifier and the user-specified command;
- receiving the device identifier and the user-specified command;
- extracting the device identifier; comparing said extracted device identifier with
 a further device identifier for identification of the controllable device; refraining from further
 operation with the received user-specified command if said identifiers do not match;
- supplying the user-specified command to the controllable device.

JXM.0004.0014-5. This claim focuses, as does the specification, on employing a device identifier to determine whether a user-specified command entered with a remote control should be supplied to a particular controllable device. On March 15, 2006, claim 9 was rejected as anticipated by Brinkmeyer (U.S. Patent No. 5,940,007). JXM-0004.0090. In response, claim 9 was amended to require at least two "identical" controllable devices, and the patentee argued that this limitation distinguishes claim 9 from the prior art. JXM-0004.0104-7. Claim 9 was rejected as obvious over Brinkmeyer in view of Adolph (U.S. Patent No. 5,959,539), because Adolph provided the limitation of two identical controllable devices. JXM-0004.0118-20. On September 13, 2006, the patentee amended claim 9 as follows and the amendment was entered on November 6, 2006, when the patentee filed a Request for Continued Examination:

- 9. (currently amended) A method of remote control of at least two identical <u>like</u> controllable devices, the method comprising the step of communicating a user-specified command to the identical controllable devices, characterized in that the method comprises the further steps of:
- entering a user-specified command on a key pad of a remote, the user specified command being common to the at least two controllable devices;
 - sending the entered user-specified command to an encoding device;
- with the encoding device, adding to the user-specified command a
 device identifier for identification of at least one of the identical at least two
 controllable devices;
- with one of the remote and the encoding device, transmitting the device identifier and the user-specified command;
- with the controllable devices or decoder devices associated with the controllable devices, receiving the device identifier and the user-specified command;
- with the decoder devices, extracting the device identifier[[;]] and comparing said extracted device identifier with [[a]] further device identifiers for identification of the identical controllable device; refraining from further operation with the received user-specified command if said identifiers do not match;
- supplying the user-specified command to the identical controllable devices associated with decoding devices in which the identifiers match.

JXM-0004.0131-2. Claim 9 was rejected as obvious over Lin (U.S. Patent No. 5,854,594) in view of Adolph. JXM-0004.0162. Subsequently, claim 9 was amended to recite a plurality of controllable devices that respond to common commands and a user-selected device identifier. JXM-0004.0177-8. The patentee also added, for the first time, dependent claim 16, directed to remote control and coding devices that are selectively interconnectable and disconnectable and which function differently depending on which state they are in:

16. (New) The system according to claim 13, wherein the remote control device and the coding device are separate devices which are selectively interconnectable and disconnectable, the remote control device functioning to transmit the user-specified command to controllable devices when the coding device is disconnected and the coding device functioning to transmit the user-specified command when the remote control device and the coding device are connected.

JXM-0004.0180.

In response, on July 12, 2007, the examiner indicated that the subject matter of claim 16 is not disclosed in the prior art and covers allowable subject matter. JXM-0004.0205. The patentee again amended claim 9 to incorporate the concept of selective connectability:

- 9. (currently amended) A method for remotely controlling a plurality of like controllable devices which respond to common commands, the method comprising:
- interconnecting a selectively interconnectable and disconnectable encoding device with a remote;
- interconnecting a selectively interconnectable and disconnectable decoding device with one of the controllable devices;
- entering a common user selected device identifier into the remote and the decoding device;
- entering a user-specified one of the common commands on a key pad of [[a]] the remote, the user-specified common command being configured to control each of the plurality of controllable devices;
- sending the entered user-specified command to [[an]] the encoding device;
- with the encoding device, adding to the user-specified command
 [[a]] the user-selected device identifier for identification of at least one of the plurality of controllable devices;
- with one of the remote and the encoding device, transmitting the device identifier and the user-specified command;
- with the controllable devices or the interconnected decoder device[[s]] associated interconnected with one of the controllable devices, receiving the device identifier and the user-specified command;
- with the decoder device[[s]], extracting the device identifier and comparing said extracted device identifier with [[a]] the common user-selected device identifier entered into the decoder device;
- supplying the user-specified command to the controllable devices associated with decoding devices in which the identifiers match.

JXM-0004.0216-7.

Claim 9, however, was again rejected as obvious in light of Lin, Tsui (U.S. Patent No. 6,005,508), and Memmel (U.S. Patent No. 4,884,055). JXM-0004.0236. At that point, the patentee cancelled claim 9 and introduced claim 19, which ultimately issued as claim 5, with the

disputed wherein clause. JXM-0004.0249-52. On February 12, 2008, the examiner allowed claim 19, as well as several other claims. JXM-0004.0260.

This prosecution history demonstrates that the wherein clause, which explains what steps are to be taken in each of the connected and disconnected states, was necessary to secure allowance of claim 5. Roku cannot now argue that one of those states (the disconnected state) is "surplusage" that the Commission can ignore. *See, e.g., Cybersettle*, 243 F. App'x at 608 (limitation added to overcome prior art was a required step of the method). Thus, considering the text of claim 5, the specification, and the prosecution history of the '511 patent, the Commission finds that a person of ordinary skill in the art would not be able to determine with reasonable certainty the scope of claim 5 in the "disconnected" state, and claim 5 is therefore invalid as indefinite.

B. The '875 Patent

1. The ALJ's Findings

The ID found that (1) the Representative Accused Products infringe claims 1-5, 8, and 10 of the '875 patent; (2) Representative Accused Products Altice/Charter Pulse RF Remote (URC 2068) and WOW Experience Remote (URC 2135) infringe claim 9 of the '875 patent; (3) the '875 Respondents did not induce infringement of the asserted claims of the '875 patent; (4) the asserted claims of the '875 patent are invalid; (5) Roku failed to satisfy the technical prong of the domestic industry requirement for the '875 patent; and (6) Roku failed to satisfy the economic prong of the domestic industry requirement. ID at iv, 165. Accordingly, the ID found no violation of section 337 with respect to the '875 patent. *Id.* at iii.

As noted above, the Commission determined to review in part, and on review, affirm certain of the ID's findings, including the finding of no violation of section 337, as to the '875 patent.

2. The Parties' Arguments

Roku contends that the ID erred in finding that Roku's domestic industry product does not satisfy the technical prong of the domestic industry requirement. Roku Pet. of ID on Violation¹¹ at 22. Roku argues that it is in the process of establishing a domestic industry with respect to the '875 patent by developing the Gazelle remote control that will incorporate the functionality described in the Unified TV IR Code Configuration ("Feature Guide") (JX-0043C) that practices the '875 patent (the "Gazelle Remote"). Id. Roku contends that the Gazelle Remote has been designed to implement the Feature Guide and thereby will practice every limitation of claims 1-4, 8, 10, and 14 of the '875 patent. *Id.* (citing Tr. (Balakrishnan) 260:17-20). Roku argues that the ID's conclusion was based on an erroneous requirement that Roku have a practicing product by the close of fact discovery which was, Roku alleges, legal error. Id. Roku also argues that the ID erred by reading the statutory language to require completion of all necessary steps in the development of the domestic industry product prior to the close of fact discovery. *Id.* Finally, Roku argues that "under a proper application of the test for the technical prong, Roku provided substantial evidence that (a) it is taking the necessary tangible steps towards developing the Gazelle Remote; and (b) there is a significant likelihood that the Gazelle Remote will exist in the future and will practice at least one claim of the '875

¹¹ Complainant Roku's Petition for Review of Initial Determination on Violation of Section 337 (July 11, 2022) ("Roku Pet. of ID on Violation").

patent." *Id.*; *see also id.* at 23-41. Respondents oppose review. Resp. to Roku Pet. of ID on Violation¹² at 18-29.

3. Analysis

The Commission has determined to affirm the ID's finding that Roku failed to prove that it satisfies the technical prong of the domestic industry requirement, based on the modified analysis below. The Commission has also determined to take no position with respect to the ID's finding that Roku failed to satisfy the economic prong of the domestic industry requirement. *See Beloit Corp.*, 742 F.2d at 1423.

The domestic industry requirement is set forth by statute. A violation of section 337 shall be found to exist "only if an industry in the United States, relating to the articles protected by the patent . . . exists or is in the process of being established." 19 U.S.C. § 1337(a)(2). The Commission examines whether the asserted domestic industry products practice the asserted patent ("technical prong") and whether, with respect to the domestic industry articles protected by the patent, the specified investments in subsection 337(a)(3)(A)-(C) are significant or substantial ("economic prong"). *Certain Stringed Musical Instruments and Components Thereof*, Inv. No. 337-TA-586, USITC Pub. No. 4120 (Dec. 2009) ("*Stringed Musical Instruments*"), Comm'n Op. at 13 (May 16, 2008) (citing S. REP. 100-71 at 130, and H. REP. 100-40 at 157). An industry is "in the process of being established" if the complainant can "demonstrate that [it] is taking the necessary tangible steps to establish such an industry in the United States" and that there is a "significant likelihood that the industry requirement will be satisfied in the future." *Id.* (citations omitted).

¹² Respondents' Response to Roku's Petition for Review (July 19, 2022) ("Resp. to Roku Pet. of ID on Violation").

a. The Domestic Industry Is to Be Assessed at the Time of the Complaint

The relevant date at which to determine whether the domestic industry exists or is in the process of being established is the filing date of the complaint. See Motiva, LLC v. Int'l Trade Comm'n, 716 F.3d 596, 601 n.6 (Fed. Cir. 2013) (affirming the Commission's use of the complaint filing date to determine whether complainant proved that an industry exists or is in the process of being established); Certain Video Game Systems and Controllers, Inv. No. 337-TA-743, Comm'n Op. at 5 (Jan. 20, 2012), aff'd sub nom. Motiva, 716 F.3d 596 ("[A]s a general matter, the only activities that are relevant to the determination of whether a domestic industry exists or is in the process of being established are those that occurred before the complaint was filed."). The Commission has explained that it "will consider post-complaint evidence regarding domestic industry only in very specific circumstances, i.e., 'when a significant and unusual development has occurred after the complaint has been filed." Certain Collapsible Sockets for Mobile Electronic Devices and Components Thereof, Inv. No. 337-TA-1056, Comm'n Op. at 15 n.10 (July 9, 2018) (quoting Certain Television Sets, Television Receivers, Television Tuners, and Components Thereof, Inv. No. 337-TA-910, Comm'n Op. at 72 (Oct. 30, 2015) (declining to consider post-complaint evidence to determine whether an industry exists)); Thermoplastic Encapsulated Electric Motors, Components Thereof, and Products and Vehicles Containing Same II, Inv. No. 337-TA-1073, Comm'n Op. at 13 (Aug. 12, 2019) (finding that the date for determining domestic industry in the process of being established is the complaint filing date, and that complainant's reliance on post-complaint evidence of prototype manufacturing did not show an industry in the process of being established as of the complaint filing date)).

Here, the ID considered Roku's contentions regarding whether it satisfied the technical prong of the domestic industry requirement at the time of the complaint and found that it did not.

See ID at 87-92. Roku made no argument, nor did it offer any evidence at the hearing, that there was "a significant and unusual development after the complaint has been filed" so as to justify the ALJ's consideration of post-complaint evidence to support its domestic industry claim.

Thus, to the extent the ID considered evidence as of the close of discovery, rather than as of the complaint filing date, the ID erred. ID at 87-88.

b. Roku Failed to Show That a Domestic Industry Exists Under the Technical Prong

Both Federal Circuit law and Commission precedent require the existence of actual "articles protected by the patent" in order to establish that a domestic industry exists at the time the complaint is filed. In *Microsoft Corp. v. International Trade Commission*, the Federal Circuit held:

Section 337, though not requiring that an article protected by the patent be produced in the United States, unmistakably requires that the domestic company's substantial investments relate to actual "articles protected by the patent." 19 U.S.C. § 1337(a)(2), (3). A company seeking section 337 protection must therefore provide evidence that its substantial domestic investment—e.g., in research and development—relates to an actual article that practices the patent, regardless of whether or not that article is manufactured domestically or abroad. InterDigital Commc'ns v. Int'l Trade Comm'n, 707 F.3d 1295, 1299, 1304 (Fed. Cir. 2013).

731 F.3d 1354, 1361-62 (Fed. Cir. 2013) ("Microsoft") (emphasis added). In view of both Microsoft and InterDigital (cited by Microsoft above), the Commission has held that "a complainant alleging the existence of a domestic industry under 19 U.S.C. § 1337(a)(3)(C) must show the existence of articles." Certain Computers and Computer Peripheral Devices, and Components Thereof, and Products Containing Same ("Certain Computers and Computer Peripheral Devices"), Inv. No. 337-TA-841, Comm'n Op. at 40 (Jan. 9, 2014). The existence of actual articles protected by the asserted patent applies equally to, inter alia, subsection 337(a)(3)(B), the provision upon which Roku relies. 19 U.S.C. § 1337(a)(2), (3); see Microsoft,

731 F.3d at 1361-62 ("Section 337, though not requiring that an article protected by the patent be produced in the United States, unmistakably requires that the domestic company's substantial investments relate to actual 'articles protected by the patent."") (citing 19 U.S.C. § 1337(a)(2), (3)). Thus, to demonstrate that a domestic industry exists, the "existence of articles" requires a physical embodiment of the patented invention, although this requirement is not "limited to commercial goods." *Certain Non-Volatile Memory Devices and Products Containing the Same*, Inv. No. 337-TA-1046, Comm'n Op. 41 (Oct. 26, 2018) ("*Memory Devices*").

In the present investigation, the ID found that "[n]o Roku product exists that practices the '875 patent." ID at 83 (subsection VI.D.2.a. heading). The record supports this finding. *See id.* at 83-88. Therefore, we agree with the ID that Roku has not shown the existence of an article protected by the patent at the time of the filing of the complaint. *See id.* Without a physical embodiment of the patented invention, the Commission finds that Roku cannot establish that a domestic industry "exists" relating to the articles protected by the patent.

c. Roku Failed to Demonstrate That a Domestic Industry Was in the Process of Being Established Under the Technical Prong

Roku also argued that it was in the process of establishing a domestic industry as to the '875 patent. *See, e.g.*, Roku's Initial Post-Hearing Brief at 52; Roku Pet. of ID on Violation at 1. The ID found that as of the date of the filing of its complaint Roku had not taken the necessary

]].

¹³ See, e.g., ID at 83 ("[i]t is undisputed that Roku has not made an operational prototype of the Gazelle remote and there is no date certain for release") (citing Tr. (Jeffrey Peters) at 108:3-22, 109:12-14, 109:22-25, 109:16-24.) (footnote omitted); see also id. at 83-84 [[

tangible steps to establish the requisite industry in the U.S. and had not shown a significant likelihood that such an industry will be established with respect to the development of a protected article in the future. ID at 93, 95. The record supports the ID's finding. *See id.* at 83-89, 93-96.¹⁴

As discussed further below, Roku failed to produce, and the record lacks, sufficient evidence of how Roku's alleged domestic industry device (Gazelle) will operate so as to allow the parties to probe in discovery, and the Commission to make a determination, as to whether Gazelle will practice the '875 patent. As a result, and as the ID found, "the 875 Respondents have not had an opportunity to assess whether Gazelle will ever actually meet each and every claim limitation of one or more claims of the '875 patent." ID at 87. The ID further found that "[t]his is not about significant likelihood, but rather, substantial proof with respect to the technical prong. The '875 Respondents have had no opportunity to evaluate in fact or expert discovery whether Roku's future promised product actually would practice the claims of the '875 patent." *Id.* at 90. Roku does not rebut these findings. *See* Roku Pet. of ID on Violation at 22-46. We agree with the ID that complainant must provide sufficient information to allow an assessment of whether the technical prong is met with respect to a domestic industry in the process of being established.

Evidence of a complainant's progress towards an article that will practice one or more claims of the asserted patent as of the complaint filing date is relevant to whether the complainant has taken the necessary tangible steps to establish an industry, and whether there is

¹⁴ See, e.g., ID at 93 ("It is Roku's burden to show that it has taken "the necessary tangible steps to establish such an industry" and there is a "significant likelihood that the industry requirement will be satisfied in the future." Roku has failed to meet its burden.") (citing Tr. (Herrington) at 789:20-790:3, 791:17-792:3, 797:15-25, 809:13-16).

a significant likelihood that the domestic industry requirement will be satisfied in the future. The Commission, however, does not adopt the ID's finding that a currently existing physical article must exist at the time of the complaint filing to show a domestic industry in the process of being established. *See* ID at 89-92.¹⁵

The Commission finds that Roku failed to meet its burden to show that, at the time the complaint was filed, Roku was taking the necessary tangible steps towards practicing the '875 patent, and that there was a significant likelihood that the Gazelle Remote (or any other physical article) would practice one or more claims of the '875 patent in the future. Because Roku's evidence in this investigation is not sufficient to support such a showing, Complainant could not show that it met the technical prong of a domestic industry in the process of being established. While in its Complaint, Roku "alleged it would release the Gazelle remote [[

]]

_

¹⁵ We note that, in *Certain Memory Devices*, the Commission rejected the argument that section 337(a)(2) requires a complainant to prove commercial production to establish an industry "in the process of being established." *Certain Memory Devices*, Comm'n Op. at 41-44. The Commission stated that the term "article" in section 337(a)(2) "is sufficiently capacious to embrace pre-commercial or non-commercial items." *Id.* at 42. Because *Certain Memory Devices* involved evidence of articles that had been manufactured for research and development, the question how the protected "articles" in section 337(a)(2) may be satisfied for purposes of a domestic industry in the process of being established was not an issue. Likewise, although an ALJ opined on the issue in *Certain Multiple-Beam Equalization Systems for Chest Radiography and Components Thereof*, Inv. No. 337-TA-326, Order No. 26, 1991 WL 788679, at *3 (Aug. 20, 1991), that order does not constitute the determination of the Commission because the investigation settled prior to a final Commission determination. Notice, 56 Fed. Reg. 58,587 (Nov. 20, 1991); *see also Certain Thermoplastic-Encapsulated Electric Motors, Components Thereof, and Products and Vehicles Containing Same* II, Inv. No. 337-TA-1073, Comm'n Op. at 12-15 (Aug. 12, 2019).

[[

]] Indeed, based on

Roku's witness testimony, the ID found that "Roku has no definitive timeline by which it will create a device that will purportedly implement the unified TV IR code feature and allegedly practice the '875 patent." *Id.* at 85.

To be clear, this is not to say that a schematic or source code is necessary or would be sufficient to show a domestic industry in the process of being established for technical prong purposes. What is required will depend on a number of factors, including the type of article and the patent claims at issue. In this case, the Commission declines to rely on Roku's mere assertion that the Gazelle Remote will practice the patent, particularly given that the Respondents "had no opportunity to evaluate in fact or expert discovery whether Roku's future promised product actually would practice the claims of the '875 patent." ID at 90; *see id.* at 87 ("Respondents have not had an opportunity to assess whether Gazelle will ever actually meet each and every claim limitation of one or more claims of the '875 patent.").

For these reasons, the Commission affirms the ID's conclusion that Complainant failed to show that it was taking the necessary tangible steps to practice the asserted patent and that there was a significant likelihood the domestic industry requirement would be satisfied in the future, and thus, Complainant failed to show, as of the filing date of the complaint, a domestic industry in the process of being established.

d. The ALJ's Economic Prong Findings

Given that Roku has failed to satisfy the technical prong of the domestic industry requirement for an existing industry or one that is in the process of being established, the

Commission takes no position on the ID's discussion and findings regarding the economic prong. *See Beloit Corp.*, 742 F.2d at 1423. Accordingly, for the reasons set forth in the ID, subject to the modifications indicated *supra*, Roku has not satisfied the domestic industry requirement of section 337, 19 U.S.C. § 1337(a)(2), (3).

C. Modifications to Other Findings as to the '875 Patent

With respect to the '875 patent, the Commission has also determined to modify the subject ID as follows: (1) on pages iii-iv, beginning from the sixth line from the bottom of page iii through the fourth line on page iv, to modify the ID's statements to read as follows: "It is a finding of this ID that Claims 1-5, 8, and 10 of U.S. Patent No. 8,378,875 ("the '875 patent") are satisfied by the Representative Accused Products. It is also a finding of this ID that Claim 9 is satisfied by Representative Accused Products Altice/Charter Pulse RF Remote (URC 2068) and WOW Experience Remote (URC 2135)."; ¹⁶ (2) on page 1, to substitute the word "satisfied" for the word "infringed" in lines 1 and 2 of column 4 of Table 1; (3) on page 72, to modify the first full sentence to read as follows: "Accordingly, the URC 2135 infringes claims 1-4, 8, and 10 for the same reasons as the URC 1160."; (4) on page 73, to modify the ID's statement on the last two lines of the page to read "a) Roku Failed to Prove that Respondents UEI, Charter, and Altice, or End Users Directly Infringed the Asserted Method Claims; Roku Proved that Respondent WOW Directly Infringed the Asserted Method Claims"; (5) on page 78, to add the statement "Accordingly, Roku showed that WOW has directly infringed the asserted method

1

¹⁶ Representative Accused Products are defined as UEI OFA Streamer Remote (URC 7935); Charter Spectrum RF4CE Remote (URC 1160); Altice/Charter Pulse RF Remote (URC 2068); and WOW Experience Remote (URC 2135). *See* ID at xv. Furthermore, the ID provides that "UEI manufactures, sells to WOW, and imports into the United States a universal remote called the WOW Experience Remote, which is also known as the URC 2135." ID at 34.

claims" on line 4 from the bottom of the page; and (6) on page 121, on the seventh line from the

top, to strike the words "or renders obvious."

V. **CONCLUSION**

For foregoing reasons, the Commission affirms the ID's finding that claim 5 of the '511

patent is invalid as indefinite. Accordingly, the Commission affirms the ID's finding that there

is no violation of section 337 with respect to the '511 patent in this investigation.

The Commission likewise affirms, based on the modified reasoning detailed *supra*, the

ID's conclusion that Roku has failed to demonstrate that it satisfied the technical prong of the

domestic industry requirement as to the '875 patent. Accordingly, the Commission affirms the

finding that there is no violation of section 337 with respect to the '875 patent in this

investigation.

By order of the Commission.

Katherine M. Hiner

Lathum Mine

Acting Secretary to the Commission

Issued: November 30, 2022

27